

WHAT IS CLAIMED IS:

1. A protective film product capable of radiating far infrared ray with wavelength of  $4\ \mu\text{m}\sim 14\ \mu\text{m}$ , utilizing the fact that in ordinary temperature far infrared ceramic materials can absorb the environmental energy and radiate appropriate amount of far infrared ray, and letting the slurry of the far infrared ceramic materials be coated on a flexible base film a thin surface layer to form the protective film product, thus presenting excellent flexibility to be used as a wrappage material, a protective lining, ...etc., so as to achieve the freshkeeping for the food, the late-ripen for the picked fruits, as well as the warmkeeping, raising and healthkeeping for the living beings;

wherein said far infrared ceramic materials are selected from the group consisting of  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{TiO}_2$ ,  $\text{Cr}_2\text{O}_3$ ,  $\text{SiO}_2$ ,  $\text{Y}_2\text{O}_3$ ,  $\text{MgO}$ ,  $\text{ZrO}_2$ , the mixing ratio depends upon different applications;

wherein said flexible base film is Polyester (PET) film;

wherein the thickness of said base film is between  $4\ \mu\text{m}\sim 200\ \mu\text{m}$ , the coating thickness of said far infrared ceramic materials is between  $1\ \mu\text{m}\sim 50\ \mu\text{m}$ .

2. A protective film product according to claim 1, wherein said flexible base film is a Polyvinyl Chloride (PVC) film.
3. A protective film product according to claim 1, wherein said flexible base film is a Polyolefins film, such as Polyethylene (PE) film, Polypropylene (PP) film, etc.
4. A protective film product according to claim 1, wherein said flexible base film is an aluminum foil or a tin metal foil.

5. A protective film product according to claim 1, wherein said flexible base film can be replaced by any other flexible chemical film, thin paper, thin metal foil, or thin cloth.

6. A protective film product according to claims 1, 2, 3, 4, wherein  
5 by mixing said far infrared ceramic materials with the original material of said base film, instead of coating, the same effects of freshkeeping for the food, the late-ripen for the picked fruits, as well as the warmkeeping, raising and healthkeeping for the living beings are still achieved.

10 7. A protective film product according to claims 1, 2, 3, 4, 5, wherein moth/bacteria proofing materials (e.g. chitin chitosan or propolis) are added into the slurry of said far infrared ceramic materials during the manufacturing process, then the moth/bacteria proofing effects can be achieved.

15 8. A protective film product according to claim 6, wherein moth/bacteria proofing materials (e.g. chitin chitosan or propolis) are added into the slurry of said far infrared ceramic materials during the manufacturing process, then the moth/bacteria proofing effects can be achieved.

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